Department of Public Works Annual Report















The Department of Public Works (DPW) is an integral part of our community as it provides essential services that touch every resident and most Detroit businesses on a regular basis. DPW also stands at the forefront of our efforts to protect the environment, increase efficiency in operations and create a clean, sustainable city.

This annual report of DPW (July 2009 through 2010) shares detailed information on the activities of the department, its operations and updates on initiatives.

Included in this report are the everyday services provided by DPW, as well as the special projects that were developed to further enhance the quality of your lives. From collecting refuse, clearing snow, and repairing roads on a regular basis to the launch of a pilot curbside-recycling program, the opening of a state-of-the-art Traffic Management Center, and the efforts to eliminate blight, the meaningful work performed by the employees in DPW is evident to all who live in or visit our city.

While DPW has made great strides, there is still work to be done, as continuous improvement is my expectation. As DPW plays its role in meeting the four objectives of my administration — financial stability, job creation, public safety, and education — your continued support is appreciated.

Effectively providing the fundamental services that citizens expect and deserve is critical in moving our city forward.

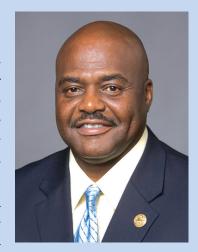
Sincerely,

Dave Bing, Mayor City of Detroit

Dear Residents:

The Department of Public Works (DPW) has a mission to bring you highquality infrastructure stewardship and a clean city in a cost-effective manner that exceeds your expectations. The leadership is committed to creating an atmosphere among our employees and providing the tools that facilitate excellent service delivery. These tasks embrace systems with sustainable and environmentally responsible characteristics at the forefront and in alignment with the vision of Mayor Bing for the City of Detroit.

The 660 hard working employees of the department operate an integrated solid waste system and ensure that travel is safe and smooth in an environment that is visually pleasing. They clear the streets of snow in challenging and sometimes dangerous conditions. Our employees perform their responsibili-



ties knowing that their work directly impacts their families and you. Thus, they continue to do their part to help the city of Detroit become a world-class city. With your cooperation, we can get there together!

This information will provide a snapshot of the department's accomplishments during 2009 and a glimpse of what you can expect for the remainder of 2010. DPW will deliver more than \$66 million worth of infrastructure projects in fiscal 2010. The projects comprise more than 90 miles of road resurfacing, installation of more than 12,000 Americans with Disabilities Act (ADA) compliant sidewalk ramps, 2,031 of which will be installed within a five-square mile area encompassing the Central Business District, Medical Center, Cultural Center and Entertainment District. The projects are funded in part through the American Recovery and Reinvestment Act as provided in President Barack Obama's economic stimulus program.

DPW embraces its responsibilities to advance a sustainable and green agenda. In keeping with that philosophy, the Urban Non-Motorized Task Force was created. In conjunction with City Council and other public and private stakeholders, the goals of the task force are to incorporate non-motorized aspects in the City's Master Plan and implement a transportation system that links safe pathways for cyclists and pedestrians.

In 2010, the Department will convene a group that represents community and corporate stakeholders to draft an integrated Municipal Solid Waste policy for the next ten years. From this endeavor, we will develop a citywide recycling program and forward-thinking disposal systems with the Greater Detroit Resource Recovery Authority as an integral partner.

We are Here to Serve You!

Sincerely,

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Director, Department of Public Works



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Introduction: Administration

The Department of Public Works was established in 1874. The Department's responsibilities include managing municipal solid waste for the City, maintaining City-owned rights of way and traffic signals, and snow removal. DPW also provides engineering and inspection services for all road construction work performed in the City's rights of way.

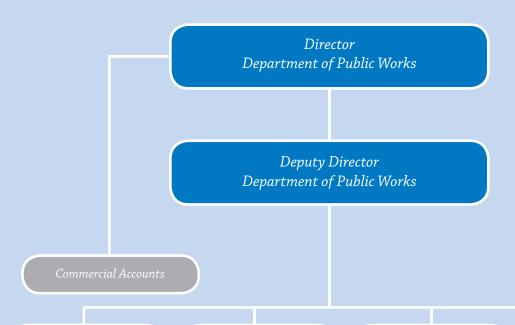
The Department of Public Works shall:

- 1. Provide for the management and collection of garbage and debris
- 2. Cooperate with other City departments and regional agencies to enforce both City of Detroit Municipal Codes, Chapter 9 (Property Maintenance) and Chapter 22 (Solid Waste), and other environmental statues except as otherwise provided by law or charter
- 3. Provide for the construction, maintenance and engineering design of streets, and alleys
- 4. Plan, establish and maintain systems and devices for safe and expeditious regulation and control of traffic within the city
- 5. Perform other functions necessary to improve the quality of the environment as provided by law or ordinance

As a reflection of our commitment to a green agenda, DPW has facilitated funding for non-motorized projects for 2010-11. These projects, which will enhance the city and its transportation infrastructure, are:

- 1. Corktown Mexican Town Green Link
- 2. Midtown Greenway Loop
- 3. Conner Creek Greenway Southern Terminus

The divisions within the department are Solid Waste, Street Maintenance, City Engineering, and Traffic Engineering.



Superintendent Solid Waste Division

- Weekly refuse pickup
- Quarterly bulk pickup
- Maintain bulk drop-off locations
- Yard waste recycling
- Recycling program

City Engineer <u>City E</u>ngineering Division

- Regulate and inspect work performed within the public right-of-way
- This work includes curb cuts, excavations, utility cuts, sidewalk and driveway approach construction/ reconstruction or street and alley construction/ reconstruction.

Manager Street Maintenance Division

- Maintains city streets, alleys and sidewalks that are under the City's jurisdiction
- This work includes resurfacing, pothole repair, snow and ice removal from the 684 miles of major roads in the city, residential and major street sweeping and facilitates street closures by providing barricades for special events throughout the city

Traffic Engineer Traffic Engineering Division

- Geometric roadway design
- Traffic control signs
- Parking control signs
- Handicap signs
- Street name signs
- Pavement markings
- Urban Non-Motorized Task Force
- Traffic signal maintenance









Solid Waste Division

The Solid Waste Division collected more than 396,619 tons of waste and, in conjunction with the Street Maintenance Division, spread as much as 65,000 tons of salt during winter. This division's primary responsible is to coordinate and manage an integrated solid waste program that comprises refuse, recycling, bulk, dead animal collection, illegal dump cleanup and the refuse container service.

In the 2009 calendar year, Solid Waste:

- Collected 280,316 tons of refuse
- Removed 48,671 tons of bulk items
- Removed 14,440 tons of yard waste and brush from the curb
- Recycled 20,498 tons of recyclables
- Cleaned 4,496 illegal dump sites, clearing 8,128 tons of debris
- Recycled 89 tons of Christmas trees from the curb
- Fulfilled 7,650 secondary container placement requests, replaced 3,472, 95-gallon containers, 24, 300-gallon containers and 156, 400-gallon containers
- Received 13,040 tons of debris at the drop-off centers
- Handled 8,200 Code Enforcement Service Requests
- Completed 1,934 Rodent Eradication Service Requests
- Received 22,520 service requests through the 311 Call Center

Motor City Makeover allowed the citizens another opportunity to dispose of bulk items, and DPW disposed of an additional 11,437 tons of miscellaneous debris during that time.

As a result of citizen complaints received from the City of Detroit's 311 Call Center, DPW responded to 97 percent of its illegal dumping requests. Dead animals were removed from various locations within 24 (business) hours, and all of those requests for the calendar year were closed.

Container service (which included repair to wheels, handles or lid replacement) is a high priority for the Solid Waste Division and 97 percent of customer requests were addressed and closed.

Looking Ahead in 2010

The Solid Waste Division will continue the curbside pilot recycling program as it develops a citywide program that is fiscally and environmentally responsible. To augment the planning process for all municipal solid waste, the department will convene a municipal solid waste committee, bringing together various private and corporate stakeholders to draft a comprehensive program for the next ten years.

Another feature coming this year is a paid pickup service. The program is designed to help citizens dispose of debris that doesn't fit in the Courville container or who don't want to wait for their next scheduled bulk collection day. The pickup service is another initiative to help keep the city clean.

Street Maintenance

The DPW Street Maintenance Division is responsible for repairing, resurfacing and maintaining city streets, alleys and sidewalks under its jurisdiction. This division also provides, along with our Solid Waste Division, removal of snow & ice from the 684 miles of major roads in the city. Street Maintenance facilitates street closures by providing barricading for special events throughout the city. Additionally, this division is responsible for all residential and major street sweeping, which equates to 5,250 residential curb miles and more than 800 major street curb miles throughout Detroit.

In 2009, the Street Maintenance Division completed six cycles of cutting and cleaning on all freeway service drives in the city (Jeffries, Southfield, Ford, Chrysler, Fisher, Davison and Lodge freeways). In 2010, this activity will be performed by the General Services Department. During this same construction season, Street Maintenance cleaned 118 viaducts throughout the city.

The winter of 2008-09 was extremely harsh. Almost 70 inches of snow fell, well exceeding the seasonal average of 40 inches per year. However this division successfully handled all snowfalls, which included three (3) major snowstorms, with minimal impact to our citizens and customers.

The men and women of Street Maintenance Division responded to more than 3,400 customer service requests funneled through the City's 311 Call Center.



SERVICE REQUEST TYPE	NUMBER ADDRESSED
Alley Grade/Gravel	80
Cave Ins	348
Curb Repair Replacements	101
Guardrail Repairs	6
Pothole Repairs	1,616
Sidewalks Raised	413
Sidewalk Curb Repairs	198
Steel Plate Displaced	22
Street Resurfacing	186
Street Sweeping	130
Block Closings for Special Even	ts265

City Engineering

The City Engineering Division is responsible for all right-of-way construction and engineering services in the city.

Specifically, City Engineering staff provides the design, engineering, and construction engineering services for a variety of public works projects, including the construction of public roads, bridges, and sidewalks. The City Engineering Division is also responsible for maintaining official City maps, assigning new addresses, and preparing land surveys for construction and condemnation proceedings.

Additional services the City Engineering Division provides include the issuance of permits for the construction of sidewalks and driveway approaches, curb cuts, encroachments into the public right-of-way, temporary street and alley closings, wide and overload hauling within the city limits, barricade construction, spur railroad track construction and snow plow vehicles. City Engineering Division inspects and issues notices to property owners for the repair or replacement of defective sidewalks.

The division provides official City vertical control survey data and longitude and latitude data for Federal Communications Commission permit applications. This division will also provide information on street and alley closing petitions and processes. The division assigns house numbers for new building construction. The division will prepare plans and implement the paving of an unpaved street or alley based upon petitions approved by City Council.

Year in Review - 2009

City Engineering Division provided various design engineering services for the following infrastructure improvement projects:

- Construction of more than 2,000 ADA compliant curb ramps within a five-square-mile area bounded by Detroit River, I-75, Lodge Freeway & Grand Blvd
- Rehabilitation of Lafayette Ave. bridge over Dequindre Cut 2010
- Rehabilitation of Larned Ave. bridge over Dequindre Cut 2010
- Rehabilitation of I-96 eastbound & westbound service drive bridges over Rouge River
- Road improvement/ enhancement of Michigan Ave. from Cass Ave. to Woodward Ave.
- Road improvement/ enhancement of Kirby Street from Cass Ave. to John R. and on John R from Canfield to Kirby
- Road improvement/ enhancement of Monroe Ave. from Randolph to St. Antoine and on Brush Street from Lafayette Ave. to Gratiot Ave.





- Hot Mix Asphalt (HMA) surface milling and resurfacing of 49.33 miles of major streets and construction of more than 4,600 ADA compliant sidewalk ramps
- Hot Mix Asphalt (HMA) surface milling and resurfacing of 65 miles of residential streets and construction of more than 7,800 ADA compliant sidewalk ramps
- Replacement and repair of more than 200,000 square feet of sidewalk damaged by tree roots
- Reconstruction of Parkview Drive from Jefferson
 Avenue to the Detroit River

In 2009, the City Engineering Division issued 1,625 permits for work legally performed in our right of way, which includes work done by utility companies, railroad companies, special event planners, heavy truck haulers and snow removal contractors.

In 2009, the City Engineering Division – Survey processed the following right-of-way change requests:

- 75 petition resolutions written and submitted to City Council for approval
- 12 radius maps completed and more than 20 cartographic maps or city maps sold
- Approximately 600 new addresses assigned to various developments such as Gardenview Estates, Cornerstone Estates, Emerald Springs, etc.
- 425 legal descriptions written; 25 tract/survey descriptions written; 7 NEZ zone descriptions were written

Traffic Engineering

The Traffic Engineering staff installs and maintains traffic control devices, pavement markings and street layouts to make the street system safe and reasonably fit for public use.

Activities include: Evaluating requests for changes in the traffic circulations on the city street system including traffic signals and street signs; planning and reviewing the geometric changes in the street system to accommodate new development projects or enhance safety; and interfacing with other highway agencies, such as the Federal Highway Administration, the Michigan Department of Transportation and the Wayne County Roadway Commission, to coordinate highway planning and ensure that the City of Detroit receives its share of highway funds.

The Traffic Sign Shop fabricates, installs and maintains traffic/parking control signs and pavement markings necessary to regulate the flow of traffic on the city street system.

During the last seven years, 90% of Detroit's traffic signal system (approximately 838 intersections) has been upgraded with LED (light emitting diode) and 12" signal heads from 8" incandescent bulbs for improved visibility, reducing energy consumption by almost 90%.

The key activities performed in previous fiscal year 2008-2009 and current fiscal year 2009-2010 is summarized as follows:

2009 Year Summary:

- Traffic signal modernized at 34 intersections with new 12" LED signal heads and countdown pedestrian
- 135 intersections were upgraded with pedestrian countdown timers which help pedestrians make safe decisions before crossing roads
- Installed pedestrian activated signal at multiple locations
- 125 signalized intersections interconnected using Intelligent Transportation System; CCTV Camera system mounted at 34 intersections
- Installed zebra crosswalk and flashing beacon at 54 pedestrian bridges over freeways, as part of Safety Enhancement Project
- Maintains Non-Motorized transportation infrastructure
- Total of 18,000 traffic control signs were installed throughout city
- Installed/upgraded intersectional pavement marking (stop bar, crosswalk, turn arrows) at 180 signalized locations



- Installed 2,797,126 linear feet of lane pavement markings
- Implemented Safe Route to School (SR2S) projects for 15 schools Traffic Engineering assisted in developing priority walking routes and identifying infrastructure improvements around the school
- Conducted traffic circulation study around eight schools to enhance safety of school children and accomplish smooth and efficient traffic flow around the schools

Traffic Management Center:

The City of Detroit opened its new Traffic Management Center (TMC), which will be part of City's Intelligent Transportation System (ITS) network. The traffic related information from CCTV Camera and Detection system mounted at signalized intersections is transmitted via wireless communication to the TMC. Traffic conditions, at city intersections from 12 different cameras, are monitored on 10 feet x 5 feet video wall consisting of six separate segmented screens, which can be configured to view simultaneously. This new innovative system will improve safety and enhance traffic flows on the city street system interfaced with the TMC.





The interfacing of the city street system will be done in multiple phases as funding becomes available. Phase 1 of traffic management system includes wireless interconnect of 30 intersections in the Central Business District (CBD) area. The scheduled next three phases will interconnect another 132 intersections located on the E. Jefferson corridor, New Center and Wayne State University and Warren corridor with installation of ITS hardware, which is expected to be operational during 2010.



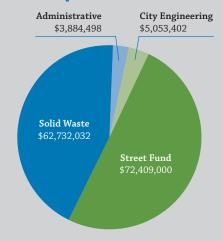


Activities in 2010

- Municipal Solid Waste Committee
- Pilot recycling curbside program
- Aggressive Environmental Code Enforcement
- More than 90 miles of streets scheduled for resurfacing in 2010
- Bridges scheduled for rehabilitation in 2010
 - Lafayette Avenue Bridge over Dequindre Cut
 - Larned Avenue Bridge over Dequindre Cut
 - 1-96 Eastbound Bridge over Rouge River
 - I-96 Westbound Bridge over Rouge River
- More than 2,000 Americans with Disabilities Act compliant curb ramps constructed in the Central Business District
- Interconnect 38 signalized intersections with Intelligent Transportation System implementation, which includes 21 CCTV
- Upgrade 185 intersections with countdown pedestrian signals
- Install pedestrian activated signal system at three locations near Wayne State University and Detroit Medical Center
- Install/upgrade internally illuminated street name signs with LED at 30 locations in Central Business District area

- Signal timing optimization for 156 signals located in Central Business District and New Center area
- Safe Route to School (SR2S) projects involving 10 schools
- Non-Motorized Transportation
 Infrastructure
- Traffic Circulation Study around schools involving 10 schools
- Install intersectional pavement markings (stop bar, crosswalk, turn arrows) at 278 intersections citywide.
- Install 2,940,960 linear feet of Lane Pavement Marking
- Safety Enhancement Projects for three schools

Department of Public Works FY 2009-2010



Solid Waste Appropriations Refuse Collection \$32,735,388 Recycling \$3,850,000 Environmental Enforcement \$2.289.330 Disposal (GDRRA) \$23,857,314 **Street Fund Appropriations** Street Fund Capital..........\$18,720,536 Street Maintenance \$25,780,470 Traffic Engineering \$6,765,505 and Sign Shop. Other Operations and Maintenance \$21,142,489

Department of Public Works FY 2010-2011



Solid Waste Appropriations		
Refuse Collection\$32,302,064		
Recycling\$1,686,806		
Environmental		
Enforcement\$2,508,341		
Scrap Tire Grant\$28,550		
GDRRA\$16,015,358		
Street Fund		
Appropriations		
Street Fund Capital \$10,882,519		
Street Maintenance \$27,832,173		
Traffic Engineering and Sign Shop\$6,208,816		
Other Operations and Maintenance \$15,480,199		
Other Major Street Funds \$2,800,000		



City of Detroit Department of Public Works

Al Jordan, Director



City of Detroit

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Detroit City Council

Charles Pugh, President
Gary Brown, President Pro Tem
Saunteel Jenkins
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Brenda Jones
Andre Spivey
James Tate
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Janice M. Winfrey, City Clerk

Communications & Creative Services Division / 2010